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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,050	01/12/2004	Yoichi Nishioka	NAII122162	1717

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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER

SOUW, BERNARD E

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,050

Applicant(s)

NISHIOKA, YOICHI

Examiner

Bernard E Souw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,5,7-10 and 12-18 is/are rejected.
7) ☒ Claim(s) 3,4,6 and 11 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/13/2004.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application JP 2001-212391 filed in Japan on 07/12/2001. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Preliminary Amendment

The Preliminary Amendment filed 05/03/2004 has been entered regarding a cross reference to related application, which is now declared as being a *continuation-in-part* of prior International Application No. PCT/JP02/06422, filed June 26, 2002.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 7-10, 12, 16 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Norton (USPAT 4,676,896).

► Regarding claims 1 and 12, Norton discloses in Fig.1-4 a water purifying apparatus for purifying water sent to a faucet 10, comprising a main body 14, an ultraviolet (UV) light generator equipped with a UV lamp 26 shown in Fig.3, and a control unit 28-32-30 shown in Fig.1, wherein the main body 14 is equipped with a passage 20 allowing water to pass, as recited in the Abstract/lines 1-7 and in Col.3/ll.20-39, and wherein the UV light generator & source 26 is arranged so as to be capable of providing ultraviolet rays within the passage 20, and the control unit 28-32-30 causes ultraviolet rays to be emitted from the ultraviolet light generator 26 at the time of using the faucet 10, as recited in the Abstract/lines 7-11, and in Col.2/ll.49-54 and Col.3/ll.40-53.

► Regarding claims 7 and 9, Norton's water passage 20 has a curving part as clearly shown in Fig.3-4 and recited in Col.1/ll.66-68 and Col.3/ll.28-33.

► Regarding claim 2, the limitation of a detector for outputting a detection signal detecting whether or not the faucet 10 is in use, is inherent in Norton's, as implicated in Col.3/ll.43-49.

► Regarding claims 8 and 10, Norton's apparatus has a gap surrounding the UV light 26 in the vicinity of the curving part 20, as can be seen in Fig.3.

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► Regarding claims 16 and 17, Norton's apparatus 14 has a portion at the inner surface 34 of the passage and facing the UV generator 26 constituting a reflecting surface for the UV rays 36, as recited in Col.3/ll.54-63.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 7-10 and 12 are rejected under 35 U.S.C. 102(a) and (e) as being clearly anticipated by Jones (USPAT 6,258,265).

► Regarding claims 1 and 12, Jones discloses in Fig.7 and 10 a water purifying apparatus for purifying water sent to a faucet 37 shown in Fig.7, comprising a main body 61, an ultraviolet (UV) light generator equipped with a UV lamp 63 shown in Fig.10, and a control unit 60 shown in Fig.10, wherein the main body 61 is equipped with a passage between 61 and 62 allowing water to pass, as indicated by the arrows in Fig.10 and recited in Col.9/ll.16-21, and wherein the UV light generator/source 63 is arranged so as to be capable of providing ultraviolet rays within the passage between 61 and 62, and the control unit 60 causes ultraviolet rays to be emitted from the

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ultraviolet light generator 63 at the time of using the faucet 37, as recited in the in Col.9/II.21-28.

► Regarding claim 5, Jones's apparatus is equipped with a water pressure detector attached to valve 46 shown in Fig.7, as recited in Col.14/II.8-11.

► Regarding claims 7 and 9, Jones's water passage shown by the arrows between 61 and 62 has a curving part as clearly shown in Fig.10 by the curved arrows.

► Regarding claim 2, the limitation of a detector for outputting a detection signal detecting whether or not the faucet 37 is in use, is inherent in Jones's, as implicated in Col.9/II.24-28.

► Regarding claims 8 and 10, Jones's apparatus has a gap surrounding the UV light 63 in the vicinity of the curving part, as can be seen in Fig.10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norton or Jones in view of Markham (USPAT 5,611,918).

Norton or Jones shows all the limitations of claim 13, as previously applied to the parent claim 12, except the recitation of a display unit.

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Markham shows in Fig.2 a UV light bulb 22 (recited in Col.2/ll.58-67) that is connected over 84 and 86 to a control unit 90, the latter being connected to a monitor circuit 20, which is a display unit that provides indications if the bulb 22 is lit, as recited in Col.5/ll.4-12.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to display the status of the UV light source 22, so a prospective user of Norton's or Jones's water purifying apparatus can ascertain whether or not the apparatus is working, which also critically determines, whether or not he/she would get purified water.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norton or Jones in view of Markham (USPAT 5,611,918), and further in view of Addy (USPAT 6,798,342).

Norton or Jones as modified by Markham shows all the limitations of claim 14, except the recitation of a control unit equipped with a wireless transmitter and the display unit equipped with a receiver, so that it is possible to control the operation of the display unit using a wireless signal from the control unit.

To further connect Markham's control unit 90 to a wireless transmitter and Markham's display unit of claim 13 to a receiver, so that the water purifying apparatus could be remotely controlled and monitored, is a conventional modification well known in the art. This is an Official Notice that is supported, e.g., by Addy, showing in Fig.1 a

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control unit 26 equipped with a wireless transmitter 24, as recited in Col.3/ll.1-8, and in Fig.2 a display unit 36 equipped with a receiver 38, as recited in Col.5/ll.7-20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to equip Markham's display unit connected to 20 with a receiver, and Markham's control unit 90 with a wireless transmitter, as taught by Addy, in order to remotely monitor the status of the UV light bulb and remotely control Norton's or Jones's water purifying system.

8. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norton or Jones in view of Tiede et al. (USPAT 5,393,419).

Norton or Jones shows all the limitations of claims 15 and 18, as previously applied to the parent claim 12, except the recitation that the UV lamp is a filament-type UV lamp. This limitation is rendered obvious by Tiede et al., showing in Fig.3 a UV light bulb assembly 50 two filament-type UV lamps 51 & 52, as recited in Col.5/ll.65-68 and Col.6/ll.1-17.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use filament-type UV lamps in both Jones's and Norton's water purifying apparatus, since filament-type bulbs are known to have a compact and robust structure that would render their replacement much easier than any other type of UV light source.

Regarding claim 18, Tiede's water purifying apparatus shown in Fig.3 has a main body 50 that is equipped with a pipe 23 or 24 connected to a gap 50 and constituting

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part of the water passage (as indicated by the arrows labeled IN and OUT), the pipe equipped with an extending part 30 extending in the direction of the gap 50 between the UV light generator 60 and the inner surface of the passage 50, and the extending part sends the water in the direction of the gap 50 between the UV light generator 60 and the inner surface of the passage 50, as recited in Col.5/II.18-21.

Indication of Allowable Subject Matter

9. Claims 3, 4, 6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Indication of Allowable Subject Matter

10. The following is a statement of reasons for the indication of allowable subject matter(s):

► A water purifying apparatus for purifying water sent to a faucet comprising an ultraviolet (UV) light generator that is arranged so as to provide ultraviolet rays within the water passage at the time the faucet is being used, which is here accomplished by means of a movable member capable of moving in accordance with the water flow and a detector for detecting the water movement and triggering the electric switch for the UV lamp, as recited in claims 3, would be neither anticipated nor rendered obvious by any prior art.

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► A water purifying apparatus for purifying water sent to a faucet comprising an ultraviolet (UV) light generator that is arranged so as to provide ultraviolet rays within the water passage at the time the faucet is being used, which is further equipped with a proximity sensor for detecting the proximity of a user, as recited in claim 4, would be neither anticipated nor rendered obvious by any prior art.

► Claim 6 would be also allowable for its dependency on a previously allowable claim 4.

► Claim 11 indicates an allowable subject matter for reciting a water passage that midways becomes narrow downstream from the gap, since such a design feature is applicant's specific design choice that normally would neither be duplicated nor obviated by other inventors or manufacturers.

Communications

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard E Souw whose telephone number is 571 272 2482. The examiner can normally be reached on Monday thru Friday, 9:00 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571 272 2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications as well as for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

bes
September 30, 2004



JOHN R. LEE
SUPERINTENDING PATENT EXAMINER
TECHNOLOGY CENTER 2800